

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

REMARKS

The Examiner has objected to the use of "excimer lamp" in the application, stating that it is a trade name and therefore should be capitalized. The applicant has searched the U.S. trademark database and finds no trademark assigned to "excimer lamp." Further to this point, the applicant finds that the Merriam-Webster Dictionary defines an excimer laser as "a laser that uses a noble-gas halide to generate radiation usually in the ultraviolet region of the spectrum." The applicant respectfully requests that the Examiner reconsider this objection.

The applicant has amended the paragraph starting on page 3, line 27 herewith to more distinctly identify the Heraeus Nobelight Company.

Applicant affirms the election with traverse to prosecute the invention of Group I, claims 1-16 and 22, and to withdraw the invention of Group II, claims 17-21. The applicant cancels claims 1-22, and adds claims 23-38. Claims 23-38 are now pending in the application. These amendments find support in various parts of the specification, for example, page 2, line 18 to page 3, line 9, page 4, line 7 to page 5, line 28, and original claims 1-22, and thus no new matter is introduced. Favorable reconsideration of this application is respectfully requested in light of the above amendments and the following detailed discussion.

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

Claim Rejections – 35 U.S.C. § 112

The Examiner has rejected claims 1-15 under 35 U.S.C. § 112, second paragraph. Since claims 1-15 have been canceled, the applicant finds these rejections to be moot. However, in drafting the new claims, the applicant has adopted the Examiner's suggestions to more clearly draft the preamble so as to particularly point out and distinctly claim the subject matter.

Accordingly, the rejection of claims 1-15 should be withdrawn.

Claim Rejections – 35 U.S.C. § 102

1. The Examiner has rejected claims 1-2, 5, and 15 under 35 U.S.C. § 102(b) as being anticipated by Cole, Jr. et al. (U.S. 4,617,085, hereinafter Cole). The Examiner asserts that:

With respect to claim 1, Cole is directed to a method for removing a selected portion (abstract; column 2, lines 10-11) of a functional organic coating from the surface of a semiconductor substrate (column 3, lines 25-26) by contacting the coating with short wavelength UV light (column 2, lines 12-14); it being noted wavelengths used are consistent with those disclosed and/or claimed by Applicant. The skilled artisan would have readily appreciated that the organic coatings taught by Cole (i.e. polymethylmethacrylate, polystyrene; column 2, line 40-column 3, line 15) have hydrophobic properties.

Regarding claim 2, Cole teaches the substrate being glass (column 3, lines 26-27).

Regarding claim 5, Cole teaches the source of UV light being a laser (column 3, line 47 – 48).

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

With respect to claim 15, all limitations were addressed above with respect to claim 1, except the dominant wavelength of the UV light. Cole teaches the wavelength must be below 300nm, such as 193nm (column 4, line 67; column 5, line 1), which falls between 5-254nm.

It is the applicant's position, however, that since claims 1-2, 5, and 15 have been canceled, these rejections are moot. New claims 23-38, however, recite irradiating hydrophobic coatings on an area of an exterior surface of a vehicle glazing (see, page 2, line 23 to page 3, line 2) with UV radiation preferably having a dominant wavelength in the range of 100-200 nm (see, for example, page 2, lines 21-22), thus removing the coatings. The hydrophobic coatings referred to herein cause water which comes into contact with the coating on an exterior surface of a vehicle glazing to bead readily and run off quickly so as not to obscure the outward vision of the occupants of the vehicle (Background; page 1, lines 10-18).

After carefully studying Cole, the applicant can find nowhere in Cole where at least the above-stated limitations (irradiating hydrophobic coatings on an exterior surface of a vehicle glazing with radiation in the range of 100-200 nm), and then adhering an item to an area of an exterior surface of a vehicle glazing (claims 23-33) or utilizing electro-mechanical means to provide relative movement between a source of UV radiation and a hydrophobic coating (claims 34-38) are taught or suggested.

Therefore, claims 23-38 of the present application are not anticipated by Cole, as the inventions defined thereby are not identically disclosed in Cole, as required by 35 U.S.C. § 102(b). Consequently, the applicant respectfully submits that claims 23-38 of the present

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

application are not anticipated under 35 U.S.C. § 102 by the Cole patent, and that claims 23-38 should be allowed over Cole. Accordingly, favorable consideration of claims 23-38 is respectfully requested.

2. The Examiner has rejected claims 1, 5, and 15 under 35 U.S.C. § 102(b) as being anticipated by Blum et al. (U.S. 4,568,632, hereinafter Blum).

The Examiner asserts that:

With respect to claim 1, Blum is directed to a method for removing a selected portion (column 4, lines 19-21) of a functional polyimide coating from the surface of a semiconductor substrate (see for example, column 3, lines 59-61; column 5, lines 16-17; column 6, lines 39-41) by contacting the coating with short wavelength UV light (column 3, lines 66-68; column 4, lines 15-18; column 4, lines 39-41); it being noted wavelengths used are consistent with those disclosed and/or claimed by Applicant. The skilled artisan would have readily appreciated that polyimide coatings are organic and have hydrophobic properties.

Regarding claim 5, Blum teaches the source of UV light being a laser (column 3, line 66 – column 4, line 3).

With respect to claim 15, all limitations were addressed above with respect to claim 1,. Blum teaches the wavelength must be below 220nm, such as 185nm or 193nm (column 4, line 67; column 5, line 1), which fall between 5-254nm.

It is the applicant's position, however, that since claims 1, 5, and 15 have been canceled, these rejections are moot. New claims 23-38, however, recite irradiating hydrophobic coatings

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

on an area of an exterior surface of a vehicle glazing (see, page 2, line 23 to page 3, line 2) with UV radiation preferably having a dominant wavelength in the range of 100-200 nm (see, for example, page 2, lines 21-22), thus removing the coatings. The hydrophobic coatings referred to herein cause water which comes into contact with the coating on an exterior surface of a vehicle glazing to bead readily and run off quickly so as not to obscure the outward vision of the occupants of the vehicle (Background; page 1, lines 10-18).

After carefully studying Blum, the applicant can find nowhere in Blum where at least the above-stated limitations (irradiating hydrophobic coatings on an exterior surface of a vehicle glazing with radiation in the range of 100-200 nm), and then adhering an item to an area of an exterior surface of a vehicle glazing (claims 23-33) or utilizing electro-mechanical means to provide relative movement between a source of UV radiation and a hydrophobic coating (claims 34-38) are taught or suggested.

Therefore, claims 23-38 of the present application are not anticipated by Blum, as the inventions defined thereby are not identically disclosed in Blum, as required by 35 U.S.C. § 102(b). Consequently, the applicant respectfully submits that claims 23-38 of the present application are not anticipated under 35 U.S.C. § 102 by the Blum patent, and that claims 23-38 should be allowed over Blum. Accordingly, favorable consideration of claims 23-38 is respectfully requested.

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

3. The Examiner has rejected claims 1-3, 5, 9-10 and 15 under 35 U.S.C. § 102(e) as being anticipated by Van Der Putten et al. (U.S. 6,316,059, hereinafter Van Der Putten). The Examiner asserts that:

With respect to claims 1 and 3, Van Der Putten is directed to a method for removing a selected portion (column 2, line 63) of a functional polysiloxane coating 3 from the surface of a substrate 1 (column 6, lines 24-25, 27, and 40-41) by contacting the coating with short wavelength UV light 9 (Figure 1b; column 3, lines 35-38; column 4, lines 43-52 and 63-67; column 6, line 39); it being noted wavelengths used are consistent with those disclosed and/or claimed by Applicant. The skilled artisan would have readily appreciated that polysiloxane (same coating disclosed by Applicants) is organic and has hydrophobic properties.

Regarding claim 2, Van Der Putten teaches the substrate being glass (column 6, line 14).

Regarding claim 5, Van Der Putten teaches the source of UV light being a laser (column 4, lines 63-67).

Regarding claim 9, Van Der Putten, like the present invention, teaches a polysiloxane coating on a glass substrate; therefore, skilled artisan would have appreciated a contact angle greater than 100°.

Regarding claim 10, Van Der Putten, like the present invention, teaches removing all of the coating from the glass substrate in selected areas by contacting the coating with UV light; therefore, the skilled artisan would have appreciated a contact angle less than 30° in these areas.

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

With respect to claim 15, all the limitations were addressed with respect to claim 1 above, except the dominant wavelength of the UV light. Blum (sic) teaches the wavelength can be 198nm, (column 4, line 67), which falls between 5-254nm.

It is the applicant's position, however, that since claims 1-3, 5, 9-10, and 15 have been canceled, these rejections are moot. New claims 23-38, however, recite irradiating hydrophobic coatings on an area of the exterior surface of a vehicle glazing (see, page 2, line 23 to page 3, line 2) with UV radiation preferably having a dominant wavelength in the range of 100-200 nm (see, for example, page 2, lines 21-22), thus removing the coatings. The hydrophobic coatings referred to herein cause water which comes into contact with the coating on an exterior surface of a vehicle glazing to bead readily and run off quickly so as not to obscure the outward vision of the occupants of the vehicle (Background; page 1, lines 10-18).

After carefully studying Van Der Putten, the applicant can find nowhere in Van Der Putten where at least the above-stated limitations (irradiating hydrophobic coatings on an exterior surface of a vehicle glazing with radiation in the range of 100-200 nm), and then adhering an item to an area of an exterior surface of a vehicle glazing (claims 23-33) or utilizing electro-mechanical means to provide relative movement between a source of UV radiation and a hydrophobic coating (claims 34-38) are taught or suggested.

Therefore, claims 23-38 of the present application are not anticipated by Van Der Putten, as the inventions defined thereby are not identically disclosed in Van Der Putten, as required by 35 U.S.C. § 102(e). Consequently, the applicant respectfully submits that claims 23-38 of the

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

present application are not anticipated under 35 U.S.C. § 102 by the Van Der Putten patent, and that claims 23-38 should be allowed over Van Der Putten. Accordingly, favorable consideration of claims 23-38 is respectfully requested.

Claim Rejections – 35 U.S.C. § 103

1. The Examiner has rejected claims 4, 8, and 16 under 35 U.S.C. § 103(a) as being unpatentable over Cole and further in view of Kizaki et al. (U.S. 5,763,892, hereinafter Kizaki).

The Examiner asserts that:

Regarding claim 4, Applicants are directed to paragraph 9 above for a complete discussion of Cole. Cole is silent as to the source of UV light being an excimer lamp. It is known (sic) in the art to remove portions of an organic coating from a semiconductor substrate by contacting the coating with short wavelength UV light in a continuous or pulsed manner, wherein a lamp is used for continuous contact and a laser is used for pulsed contact, as taught by Blum (sic) (column 4, lines 64-66; column 5, lines 1-17).

The Examiner asserts that, therefore, it would have been obvious to the skilled artisan at the time the invention was made to use a lamp for contacting the coating of Cole in a continuous manner because such is known in the art, as taught by Blum (sic), and this allows for irradiation of large areas (Blum (sic); column 5, lines 6-7). As for particular type of lamp, selection of such would have been within purview of the skilled artisan depending on the desired wavelengths emitted. However, it would have been obvious to use an excimer lamp because such is known in

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

the art for selectively removing portions of an organic coating from a semiconductor substrate by contacting the same with short wavelength UV light, a (sic) taught by Kizaki (column 1, lines 16-24; column 15, line 27 and 45-46 and 52).

With respect to claims 8 and 16, all the limitations were addressed above with respect to claims 1 and 4, except the dominant wavelength of the UV light. Cole teaches the wave length being less than 300 nm, such as 193nm (Column 2, lines 12-14), while Kizaki teaches the wavelength irradiated from the excimer lamp being 172nm (column 15, line 27), which are all between 100-200 nm.

It is the applicant's position, however, that since claims 4, 8, and 16 have been canceled, these rejections are moot. New claims 23-38, however, recite irradiating hydrophobic coatings on an area of a surface of a vehicle glazing (see, page 2, line 23 to page 3, line 2) with UV radiation preferably having a dominant wavelength in the range of 100-200 nm (see, for example, page 2, lines 21-22), thus removing the coatings. The hydrophobic coatings referred to herein cause water which comes into contact with the coating on an exterior surface of a vehicle glazing to bead readily and run off quickly so as not to obscure the outward vision of the occupants of the vehicle (Background; page 1, lines 10-18).

After carefully studying Cole and Kizaki, the applicant can find nowhere in Cole, Kizaki, or in a combination of Cole and Kizaki where at least the above-stated limitations (irradiating hydrophobic coatings on an exterior surface of a vehicle glazing with radiation in the range of 100-200 nm), and then adhering an item to an area of an exterior surface of a vehicle glazing

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

(claims 23-33) or utilizing electro-mechanical means to provide relative movement between a source of UV radiation and a hydrophobic coating (claims 34-38) are taught or suggested.

Further, the applicant can find nowhere in Kizaki where Kizaki irradiates ultraviolet light on hydrophobic coatings disposed on vehicle glazings. Instead, the applicant finds that Kizaki teaches the use of ultraviolet light to dry clean organic residue from a substrate, in the steps of photolithography or the like for producing liquid crystal displays or semiconductor devices (see column 15, lines 21-28).

Therefore, claims 23-38 of the present application are patentable over Cole and further in view of Kizaki, as the inventions defined thereby are not suggested within either Cole or Kizaki, nor is there any suggestion or motivation to modify or combine these references' teachings in order to teach or suggest the claimed limitations, as required by 35 U.S.C. § 103. Consequently, the applicant respectfully submits that claims 23-38 of the present application are patentable over Cole and further in view of Kizaki, and that claims 23-38 should be allowed over Cole and further in view of Kizaki. Accordingly, favorable consideration of claims 23-38 is respectfully requested.

2. The Examiner has rejected claims 4, 8, and 16 under 35 U.S.C. § 103(a) as being unpatentable over Blum and further in view of Kizaki. The Examiner asserts that:

Regarding claim 4, Applicants are directed to paragraph 10 above for a complete discussion of Blum. Blum teaches a continuous or pulsed source of short wavelength UV light can be used to remove portions of the organic coating from the semiconductor substrate (column

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

4, lines 64-66), wherein a lamp is used for continuous or pulsed source of short wavelength UV light can be used to remove portions of organic coating from the semiconductor substrate (column 4, lines 64-66; column 5, lines 1-17).

As for particular type of lamp, selection of such would have been within purview of the skilled artisan depending on the desired wavelengths emitted. However, it would have been obvious to use an excimer lamp because such is known in the art for emitting short wavelength UV light for selectively removing portions of an organic coating from a semiconductor substrate, a (sic) taught by Kizaki (column 1, lines 16-24; column 15, line 27 and 45-46 and 52).

With respect to claims 8 and 16, all the limitations were addressed above with respect to claims 1 and 4, except the dominant wavelength of the UV light. Blum teaches the wavelength being less than 220 nm, such as 185 or 193 (column 4, line 67; column 5, line 1), while Kizaki teaches the wavelength irradiated from the excimer lamp being 172nm (column 15, line 27), which are all between 100-200 nm.

It is the applicant's position, however, that since claims 4, 8, and 16 have been canceled, these rejections are moot. New claims 23-38, however, recite irradiating hydrophobic coatings on an area of a surface of a vehicle glazing (see, page 2, line 23 to page 3, line 2) with UV radiation preferably having a dominant wavelength in the range of 100-200 nm (see, for example, page 2, lines 21-22), thus removing the coatings. The hydrophobic coatings referred to herein cause water which comes into contact with the coating on an exterior surface of a vehicle glazing

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

to bead readily and run off quickly so as not to obscure the outward vision of the occupants of the vehicle (Background; page 1, lines 10-18).

After carefully studying Blum and Kizaki, the applicant can find nowhere in Blum, Kizaki, or in a combination of Blum and Kizaki where at least the above-stated limitations (irradiating hydrophobic coatings on an exterior surface of a vehicle glazing with radiation in the range of 100-200 nm), and then adhering an item to an area of an exterior surface of a vehicle glazing (claims 23-33) or utilizing electro-mechanical means to provide relative movement between a source of UV radiation and a hydrophobic coating (claims 34-38) are taught or suggested.

Further, the applicant can find nowhere in Kizaki where Kizaki irradiates ultraviolet light on hydrophobic coatings disposed on vehicle glazings. Instead, the applicant finds that Kizaki teaches the use of ultraviolet light to dry clean organic residue from a substrate, in the steps of photolithography or the like for producing liquid crystal displays or semiconductor devices (see column 15, lines 21-28).

Therefore, claims 23-38 of the present application are patentable over Blum and further in view of Kizaki, as the inventions defined thereby are not suggested within either Blum or Kizaki, nor is there any suggestion or motivation to modify or combine these references' teachings in order to teach or suggest the claimed limitations, as required by 35 U.S.C. § 103. Consequently, the applicant respectfully submits that claims 23-38 of the present application are patentable over Blum and further in view of Kizaki, and that claims 23-38 should be allowed over Blum and

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

further in view of Kizaki. Accordingly, favorable consideration of claims 23-38 is respectfully requested.

3. The Examiner has rejected claims 6, 7, 9, 10, and 14 under 35 U.S.C. § 103(a) as being unpatentable over Cole. The Examiner asserts that:

Regarding claims 6-7, Applicants are directed to paragraph 1 above for a complete discussion of Cole. Cole teaches the wavelength being less than 300nm but is silent to a specific range below this number. One reading the reference as a whole would have appreciated that criticality is only placed on the wavelength being less than 300nm and not on a particular wavelength or range of wavelengths below this number. Therefore, since example wavelengths given by Cole (column 3, lines 48-49) fall within the ranges claimed by the present invention, the skilled artisan would have been motivated to use the claimed ranges since only the expected results would have been achieved.

Regarding claim 9, the contact angle is a function of the type of coating and therefore the skilled artisan would have appreciated that the organic, hydrophobic coating of Cole would have a contact angle similar to that of the organic, hydrophobic coating of the present invention.

Regarding claim 10, the contact angle is now a function of the amount of coating removed and/or the type of substrate underneath. Like the present invention, Cole teaches removing most, if not all, of the coating from the surface of a glass substrate and therefore the skilled artisan would have appreciated the resulting contact angle being similar to that of the present invention.

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

Regarding claim 14, selection of a contact time would have been within purview of the skilled artisan depending on the type of coating, its thickness, the particular source of UV light, etc. However, the skilled artisan would have appreciated that Cole, like the present invention, is removing an organic, hydrophobic coating from a glass substrate using UV light sources (lamp, laser) and therefore would have expected contact times to be similar to that being claimed.

It is the applicant's position, however, that since claims 6, 7, 9, 10, and 14 have been canceled, these rejections are moot. New claims 23-38, however, recite irradiating hydrophobic coatings on an area of a surface of a vehicle glazing (see, page 2, line 23 to page 3; line 2) with UV radiation preferably having a dominant wavelength in the range of 100-200 nm (see, for example, page 2, lines 21-22), thus removing the coatings. The hydrophobic coatings referred to herein cause water which comes into contact with the coating on an exterior surface of a vehicle glazing to bead readily and run off quickly so as not to obscure the outward vision of the occupants of the vehicle (Background; page 1, lines 10-18).

After carefully studying Cole, the applicant can find nowhere in Cole where at least the above-stated limitations (irradiating hydrophobic coatings on an exterior surface of a vehicle glazing with radiation in the range of 100-200 nm), and then adhering an item to an area of an exterior surface of a vehicle glazing (claims 23-33) or utilizing electro-mechanical means to provide relative movement between a source of UV radiation and a hydrophobic coating (claims 34-38) are taught or suggested.

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

Therefore, claims 23-38 of the present application are patentable over Cole, as the inventions defined thereby are not suggested within Cole, nor is there any suggestion or motivation to modify the teachings of Cole in order to teach or suggest the claimed limitations, as required by 35 U.S.C. § 103. Consequently, the applicant respectfully submits that claims 23-38 of the present application are patentable over Cole, and that claims 23-38 should be allowed over Cole. Accordingly, favorable consideration of claims 23-38 is respectfully requested.

4. The Examiner has rejected claim 2 under 35 U.S.C. § 103(a) as being unpatentable over Blum and further in view of Cole. The Examiner asserts that:

Regarding claim 2, Applicants are directed to paragraph 10 above for a complete discussion of Blum. Blum teaches the substrate being used for a semiconductor (column 5, lines 15-17) but is silent as to it being glass. Selection of a particular material would have been within purview of the skilled artisan. The Examiner asserts, however, it would have been obvious to use glass because such is known in the art, as taught by Cole (column 3, lines 26-27).

It is the applicant's position, however, that since claim 2 has been canceled, this rejection is moot. New claims 23-38, however, recite irradiating hydrophobic coatings on an area of a surface of a vehicle glazing (see, page 2, line 23 to page 3, line 2) with UV radiation preferably having a dominant wavelength in the range of 100-200 nm (see, for example, page 2, lines 21-22), thus removing the coatings. The hydrophobic coatings referred to herein cause water which comes into contact with the coating on an exterior surface of a vehicle glazing to bead readily

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

and run off quickly so as not to obscure the outward vision of the occupants of the vehicle

(Background; page 1, lines 10-18).

After carefully studying Blum and Cole, the applicant can find nowhere in Blum, Cole, or in a combination of Blum and Cole where at least the above-stated limitations (irradiating hydrophobic coatings on an exterior surface of a vehicle glazing with radiation in the range of 100-200 nm), and then adhering an item to an area of an exterior surface of a vehicle glazing (claims 23-33) or utilizing electro-mechanical means to provide relative movement between a source of UV radiation and a hydrophobic coating (claims 34-38) are taught or suggested.

Therefore, claims 23-38 of the present application are patentable over Blum and further in view of Cole, as the inventions defined thereby are not suggested within either Blum or Cole, nor is there any suggestion or motivation to modify or combine these references' teachings in order to teach or suggest the claimed limitations, as required by 35 U.S.C. § 103. Consequently, the applicant respectfully submits that claims 23-38 of the present application are patentable over Blum and further in view of Cole, and that claims 23-38 should be allowed over Blum and further in view of Cole. Accordingly, favorable consideration of claims 23-38 is respectfully requested.

5. The Examiner has rejected claims 6, 9-10, and 14 under 35 U.S.C. § 103(a) as being unpatentable over Blum. The Examiner asserts that:

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

Regarding claims 6, 9-10, and 14, Applicants are directed to paragraph 10 above for a complete discussion of Blum. Blum teaches the wavelength must be below 220nm. Applicants are directed to paragraph 16 above.

It is the applicant's position, however, that since claims 6, 9-10, and 14 have been canceled, these rejections are moot. New claims 23-38, however, recite irradiating hydrophobic coatings on an area of a surface of a vehicle glazing (see, page 2, line 23 to page 3, line 2) with UV radiation preferably having a dominant wavelength in the range of 100-200 nm (see, for example, page 2, lines 21-22), thus removing the coatings. The hydrophobic coatings referred to herein cause water which comes into contact with the coating on an exterior surface of a vehicle glazing to bead readily and run off quickly so as not to obscure the outward vision of the occupants of the vehicle (Background; page 1, lines 10-18).

After carefully studying Blum, the applicant can find nowhere in Blum where at least the above-stated limitations (irradiating hydrophobic coatings on an exterior surface of a vehicle glazing with radiation in the range of 100-200 nm), and then adhering an item to an area of an exterior surface of a vehicle glazing (claims 23-33) or utilizing electro-mechanical means to provide relative movement between a source of UV radiation and a hydrophobic coating (claims 34-38) are taught or suggested.

Therefore, claims 23-38 of the present application are patentable over Blum, as the inventions defined thereby are not suggested within Blum, nor is there any suggestion or motivation to modify the teachings of Blum in order to teach or suggest the claimed limitations,

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

as required by 35 U.S.C. § 103. Consequently, the applicant respectfully submits that claims 23-38 of the present application are patentable over Blum, and that claims 23-38 should be allowed over Blum. Accordingly, favorable consideration of claims 23-38 is respectfully requested.

6. The Examiner has rejected claims 6, 7, and 14 under 35 U.S.C. § 103(a) as being unpatentable over Van Der Putten. The Examiner asserts that: Regarding claims 6-7, Applicants are directed to paragraph 12 above for a complete discussion of Van Der Putten. Van Der Putten teaches wavelengths that fall within the claimed ranges (column 4, lines 47 and 67). Therefore, it would have been obvious to the skilled artisan at the time of invention was made to use the range of wavelengths claimed because only the expected results would have been achieved.

Regarding claim 14, selection of a contact time would have been within purview of the skilled artisan depending on the type of coating, its thickness, the particular source of UV light, etc. However, the skilled artisan would have appreciated that Van Der Putten, like the present invention, is removing an organic, hydrophobic coating from a glass substrate using UV light sources (lamp, laser) and therefore would have expected contact times to be similar to that being claimed.

It is the applicant's position, however, that since claims 6, 7, and 14 have been canceled, these rejections are moot. New claims 23-38, however, recite irradiating hydrophobic coatings on an area of a surface of a vehicle glazing (see, page 2, line 23 to page 3, line 2) with UV radiation preferably having a dominant wavelength in the range of 100-200 nm (see, for example, page 2, lines 21-22), thus removing the coatings. The hydrophobic coatings referred to herein

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

cause water which comes into contact with the coating on an exterior surface of a vehicle glazing to bead readily and run off quickly so as not to obscure the outward vision of the occupants of the vehicle (Background; page 1, lines 10-18).

After carefully studying Van Der Putten, the applicant can find nowhere in Van Der Putten where at least the above-stated limitations (irradiating hydrophobic coatings on an exterior surface of a vehicle glazing with radiation in the range of 100-200 nm), and then adhering an item to an area of an exterior surface of a vehicle glazing (claims 23-33) or utilizing electro-mechanical means to provide relative movement between a source of UV radiation and a hydrophobic coating (claims 34-38) are taught or suggested.

Therefore, claims 23-38 of the present application are patentable over Van Der Putten, as the inventions defined thereby are not suggested within Van Der Putten, nor is there any suggestion or motivation to modify the teachings of Van Der Putten in order to teach or suggest the claimed limitations, as required by 35 U.S.C. § 103. Consequently, the applicant respectfully submits that claims 23-38 of the present application are patentable over Van Der Putten, and that claims 23-38 should be allowed over Van Der Putten. Accordingly, favorable consideration of claims 23-38 is respectfully requested.

7. The Examiner has rejected claims 1, 3, 5-7, 9-15, and 22 under 35 U.S.C. § 103(a) as being unpatentable over Curtze et al. (U.S. 4,543,283, hereinafter Curtze) in view of Tweadey, II et al. (U.S. 5,131,967, hereinafter Tweadey). The Examiner asserts that:

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

With respect to claim 1, Curtze is directed to a windshield 10 comprising a glass substrate 12, an adhesive 16, an anti-lacerative sheet 14, and a functional coating (not shown) on the entire surface of the anti-lacerative sheet 14, and a functional coating (not shown) on the entire surface of the anti-lacerative sheet (Figure 2; column 4, lines 21-23; column 7, lines 8-10). The reference teaches the coating being silica-reinforced methyl-siloxane (column 8, lines 19-21), which the skilled artisan would have appreciated as being organic and hydrophobic. The reference also teaches removing peripheral portions of the coating from the anti-lacerative sheet before adhering a gasket thereto (column 7, lines 10-13; column 8, lines 21-24). However, the reference is silent a (sic) to how the coating is removed.

It is known in the windshield art to remove peripheral portions of a coating 18 from the surface of a substrate 12 by contacting the coating with short wavelength UV light, as taught by Tweady (column 4, lines 1-3 and 63-67; column 5, lines 41-43 and 50-51). One reading the Curtze reference as whole would have appreciated that particular coating removal method is not critical to the invention therefore would have been motivated to use short wavelength UV light because such is known in the art, as taught by Tweadey, where this method is fast and efficient (Tweadey; column 2, lines 50-52).

Regarding claim 3, a particular type of siloxane coating would have been within purview of the skilled artisan at the time the invention was made depending on the particular function of the coating.

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

Regarding claim 5, Tweadey teaches the UV light source being a laser (column 5, lines 41-43).

Regarding claims 6-7, Tweadey teaches wavelengths that fall within the claimed ranges (column 5, lines 50-52). Therefore, it would have been obvious to the skilled artisan at the time the invention was made to use the ranges of wavelengths claimed because only the expected results would have been achieved.

Regarding claim 9, the contact angle is a function of the type of coating and therefore the skilled artisan would have appreciated that the organic, hydrophobic coating of Curtze would have a contact angle similar to that of the organic, hydrophobic coating of the present invention.

Regarding claim 10, the skilled artisan would have appreciated that the contact angle after coating removal would be a function of the amount of coating removed and/or the type of substrate underneath.

Regarding claim 11, Curtze teaches applying a primer to the portions of the anti-lacerative sheet from which the coating was removed (column 7, lines 14-16 and 25-27).

Regarding claim 12, Curtze teaches bonding an elastomeric member 18 to the portions of the anti-lacerative sheet having the primer thereon (column 4, lines 40-44; column 7, lines 25-27).

Regarding claim 13, Curtze teaches the elastomeric member being a gasket (column 4, lines 40-44).

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

Regarding claim 14, selection of a contact time would have been within purview of the skilled artisan depending on the type of coating, its thickness, the particular source of UV light, etc.

Regarding claim 15, all the limitations were addressed above with respect to claim 1, except a dominant wavelength. Tweadey gives example wavelengths of 193nm and 248nm, which are between 5-254nm (column 5, lines 50-52).

With respect to claim 22, all the limitations were addressed above with respect to claims 1 and 11-12, except applying an adhesive to the primer and bringing the elastomeric member into contact with the adhesive. Curtze teaches applying an adhesive (second primer; column 7, lines 28-30 and 36-37) to the primer and bringing the elastomeric member into contact with the adhesive.

It is the applicant's position, however, that since claim 1, 3, 5-7, 9-15, and 22 have been canceled, these rejections are moot. New claims 23-38, however, recite irradiating hydrophobic coatings on an area of a surface of a vehicle glazing (see, page 2, line 23 to page 3, line 2) with UV radiation preferably having a dominant wavelength in the range of 100-200 nm (see, for example, page 2, lines 21-22), thus removing the coatings. The hydrophobic coatings referred to herein cause water which comes into contact with the coating on an exterior surface of a vehicle glazing to bead readily and run off quickly so as not to obscure the outward vision of the occupants of the vehicle (Background; page 1, lines 10-18).

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

After carefully studying Curtze and Tweadey, the applicant can find nowhere in Curtze or Tweadey where at least the above-stated limitations (irradiating hydrophobic coatings on an exterior surface of a vehicle glazing with radiation in the range of 100-200 nm), and then adhering an item to an area of an exterior surface of a vehicle glazing (claims 23-33) or utilizing electro-mechanical means to provide relative movement between a source of UV radiation and a hydrophobic coating (claims 34-38) are taught or suggested.

Instead, the applicant finds Curtze directed to an anti-lacerative sheet 14 secured to an interlayer 16 on a glazing interior to the vehicle (see, for example, Fig. 2 and column 4, lines 19-24). Further, it is the applicant's position that there would be no motivation to dispose a hydrophobic coating on the glazing interior to the vehicle where Curtze's anti-lacerative sheet would be disposed and then irradiate Tweadey's UV light on the hydrophobic coating, which would expose Curtze's interlayer that would remain or need to be removed also.

Therefore, claims 23-38 of the present application are patentable over Curtze in view of Tweadey, as the inventions defined thereby are not suggested within either Curtze or Tweadey, nor is there any suggestion or motivation to modify or combine these references' teachings in order to teach or suggest the claimed limitations, as required by 35 U.S.C. § 103. Consequently, the applicant respectfully submits that claims 23-38 of the present application are patentable over Curtze in view of Tweadey, and that claims 23-38 should be allowed over Curtze in view of Tweadey. Accordingly, favorable consideration of claims 23-38 is respectfully requested.

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

8. The Examiner has rejected claims 4, 8, and 16 under 35 U.S.C. § 103(a) as being unpatentable over Curtze in view of Tweadey and further in view of the collective teachings of Blum and Kizaki. The Examiner asserts that:

Regarding claim 4, Applicants are directed to paragraph 20 above for a complete discussion of Curtze and Tweadey. Curtze in view of Tweadey is silent as to the UV light source being an excimer lamp. It is known (sic) to remove portions of an organic, hydrophobic coating from a substrate by contacting the coating with short wavelength UV light in a continuous or pulsed manner, wherein a lamp is used for continuous contact and a laser is used for pulsed contact, as taught by Blum (column 4, lines 64-66; column 5, lines 1-17). Therefore, it would have been obvious to the skilled artisan at the time the invention was made to use a lamp for contacting the coating of Curtze in a continuous manner as an alternative to the laser because such is known, as taught by Blum and this allows for irradiation of large areas (Blum; column 5, lines 6-7).

The Examiner asserts that as for a particular type of lamp, selection of such would have been within purview of the skilled artisan depending on the desired wavelengths emitted. However, it would have been obvious to use an excimer lamp because such is known for emitting short wavelength UV light for selectively removing portions of an organic coating from a substrate, as taught by Kizaki (column 1, lines 16-24; column 15, line 27 and 45-46 and 52).

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

With respect to claims 8 and 16, all the limitations were addressed above with respect to claims 1 and 4, except the dominant wavelength of the UV light. Kizaki teaches the wavelength irradiated from the excimer lamp being 172nm (column 15, line 27), which is between 100-200nm.

It is the applicant's position, however, that since claims 4, 8, and 16 have been canceled, these rejections are moot. New claims 23-38, however, recite irradiating hydrophobic coatings on an area of a surface of a vehicle glazing (see, page 2, line 23 to page 3, line 2) with UV radiation preferably having a dominant wavelength in the range of 100-200 nm (see, for example, page 2, lines 21-22), thus removing the coatings. The hydrophobic coatings referred to herein cause water which comes into contact with the coating on an exterior surface of a vehicle glazing to bead readily and run off quickly so as not to obscure the outward vision of the occupants of the vehicle (Background; page 1, lines 10-18).

After carefully studying Curtze, Tweadey, Blum, and Kizaki, the applicant can find nowhere in Curtze, Tweadey, Blum, or Kizaki where at least the above-stated limitations (irradiating hydrophobic coatings on an exterior surface of a vehicle glazing with radiation in the range of 100-200 nm), and then adhering an item to an area of an exterior surface of a vehicle glazing (claims 23-33) or utilizing electro-mechanical means to provide relative movement between a source of UV radiation and a hydrophobic coating (claims 34-38) are taught or suggested.

Instead, the applicant finds Curtze directed to an anti-lacerative sheet 14 secured to an interlayer 16 on a glazing interior to the vehicle (see, for example, Fig. 2 and column 4, lines 19-

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

24). Further, it is the applicant's position that there would be no motivation to dispose a hydrophobic coating on the glazing interior to the vehicle where Curtze's anti-lacerative sheet would be disposed and then irradiate Tweadey's, Blum's, or Kizaki's UV light on the hydrophobic coating, which would expose Curtze's interlayer that would remain or need to be removed also.

Further, the applicant can find nowhere in Kizaki where Kizaki irradiates ultraviolet light on hydrophobic coatings disposed on vehicle glazings. Instead, the applicant finds that Kizaki teaches the use of ultraviolet light to dry clean organic residue from a substrate, in the steps of photolithography or the like for producing liquid crystal displays or semiconductor devices (see column 15, lines 21-28).

Therefore, claims 23-38 of the present application are patentable over Curtze and Tweadey and further in view of the collective teachings of Blum and Kizaki, as the inventions defined thereby are not suggested within either Curtze, Tweadey, Blum, or Kizaki, nor is there any suggestion or motivation to modify or combine these references' teachings in order to teach or suggest the claimed limitations, as required by 35 U.S.C. § 103. Consequently, the applicant respectfully submits that claims 23-38 of the present application are patentable over Curtze and Tweadey and further in view of the collective teachings of Blum and Kizaki, and that claims 23-38 should be allowed over Curtze and Tweadey and further in view of the collective teachings of Blum and Kizaki. Accordingly, favorable consideration of claims 23-38 is respectfully requested.

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

9. The Examiner has rejected claims 1, 2-3, 5-7, 9-10 and 14-15 under 35 U.S.C. § 103(a) as being unpatentable over Hartig et al. (U.S. 2003/0024180, hereinafter Hartig) in view of Anderson et al. (U.S. 2001/0031365, hereinafter Anderson) and Tweadey. The Examiner asserts that:

With respect to claim 1, Hartig is directed to a glazing, useable as a windshield, comprising a glass substrate 10 having a hydrophobic water-repellant exterior functional coating 20, which is applied to the entire surface of the glass and then removed from the peripheral portions thereof (Figure 5; [0011]; [0014], [0047], [0052]). The reference is silent as to the hydrophobic coating being organic and removing the portions of the coating using short wavelength UV light.

It is known in the art to coat the exterior surface of a windshield with a hydrophobic organic layer that repels water, as taught by Anderson. Therefore, it would have been obvious to use an organic material for the hydrophobic, water-repellant coating of Hartig because such is known in the art, as taught by Anderson, where only the expected results of good water-repellency would have been achieved.

It is known in the windshield art to remove peripheral portions of a coating 18 from the surface of a glass substrate 12 by contacting the coating with short wavelength UV light, as taught by Tweadey (column 4, lines 1-3 and 63-67; column 5, lines 41-43 and 50-51). One reading the Hartig reference as whole would have appreciated that a particular coating removal method is not critical to the invention (last sentence of [0078]) and therefore would have been

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

motivated to use short wavelength UV light because such is known in the art, as taught by Tweadey, and this method is fast and efficient (Tweadey; column 2, lines 50-52).

Regarding claim 2, Hartig teaches a glass substrate ([0041]).

Regarding claim 3, one reading the Hartig reference as a whole would have appreciated that no criticality is placed on the type of coating and therefore selection of a particular type of coating would have been within purview of the skilled artisan at the time the invention was made depending on the intended function thereof.

Regarding claim 5, Tweadey teaches the UV light source being a laser (column 5, lines 41-43).

Regarding claims 6-7, Tweadey teaches wavelengths that fall within the claimed ranges (column 5, lines 50-52). Therefore, it would have been obvious to the skilled artisan at the time the invention was made to use wavelengths in the ranges claimed because only the expected results would have been achieved.

Regarding claim 9, the contact angle is a function of the type of coating and therefore the skilled artisan would have appreciated that the organic, hydrophobic coating of Hartig would have a contact angle similar to that of the organic, hydrophobic coating of the present invention.

Regarding claim 10, the skilled artisan would have appreciated that the contact angle after coating removal would be a function of the amount of coating removed and/or the type of substrate underneath.

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

Regarding claim 14, selection of a contact time would have been within purview of the skilled artisan depending on the type of coating, its thickness, the particular source of UV light, etc. However, the skilled artisan would have appreciated that Hartig in view of Tweadey, like the present invention, is removing an organic, hydrophobic coating from a glass substrate using a UV light source and therefore would have expected contact times to be similar to that being claimed.

Regarding claim 15, all limitations were addressed above with respect to claim 1, except a dominant wavelength. Tweadey gives example wavelengths of 193nm and 248nm, which are between 5-254nm (column 5, lines 50-52).

It is the applicant's position, however, that since claims 1, 2-3, 5-7, 9-10 and 14-15 have been canceled, these rejections are moot. New claims 23-38, however, recite irradiating hydrophobic coatings on an area of a surface of a vehicle glazing (see, page 2, line 23 to page 3, line 2) with UV radiation preferably having a dominant wavelength in the range of 100-200 nm (see, for example, page 2, lines 21-22), thus removing the coatings. The hydrophobic coatings referred to herein cause water which comes into contact with the coating on an exterior surface of a vehicle glazing to bead readily and run off quickly so as not to obscure the outward vision of the occupants of the vehicle (Background; page 1, lines 10-18).

After carefully studying Hartig, Anderson, and Tweadey the applicant can find nowhere in Hartig, Anderson, and Tweadey where at least the above-stated limitations (irradiating hydrophobic coatings on an exterior surface of a vehicle glazing with radiation in the range of

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

100-200 nm), and then adhering an item to an area of an exterior surface of a vehicle glazing (claims 23-33) or utilizing electro-mechanical means to provide relative movement between a source of UV radiation and a hydrophobic coating (claims 34-38) are taught or suggested.

Although the Examiner asserts that Hartig is silent on how coatings are removed, the applicant finds otherwise that Hartig is directed to removing coatings by way of grinding wheels and torches (see, for example, [0079]). The applicant can find nowhere in Hartig where ultraviolet light is used or suggested. Regarding Anderson, the applicant finds Anderson to be silent on how coatings are to be removed, so Anderson adds nothing to the removal of coatings. On the other hand, Tweadey is directed to the removal of metallic films and zinc oxide (see for example, column 4, lines 16-23). Consequently, neither Anderson or Tweadey add anything to Hartig's shortcomings (i.e., at least the removal of hydrophobic coatings on an exterior surface of a vehicle glazing by way of ultraviolet light in the range of 100 nm to 200 nm.)

Therefore, claims 23-38 of the present application are patentable over Hartig in view of Anderson and Tweadey, as the inventions defined thereby are not suggested within either Hartig, Anderson, or Tweadey, nor is there any suggestion or motivation to modify or combine these references' teachings in order to teach or suggest the claimed limitations, as required by 35 U.S.C. § 103. Consequently, the applicant respectfully submits that claims 23-38 of the present application are patentable over Hartig in view of Anderson and Tweadey, and that claims 23-38 should be allowed over Hartig in view of Anderson and Tweadey. Accordingly, favorable consideration of claims 23-38 is respectfully requested.

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

10. The Examiner has rejected claims 4, 8, and 16 under 35 U.S.C. § 103(a) as being unpatentable over Hartig, Anderson, and Tweadey, and further in view of Kizaki. The Examiner asserts that:

Regarding claim 4 Applicants are directed to paragraph 22 above for a complete discussion of Hartig, Anderson, and Tweadey. Hartig in view of Tweadey is silent as to the UV light source being an excimer lamp. It is known (sic) to remove portions of an organic, hydrophobic coating from a substrate by contacting the coating with short wavelength UV light in continuous or pulsed manner, wherein a lamp is used for continuous contact and a laser is used for pulsed contact, as taught by Blum (sic) (column 4, lines 64-66; column 5, lines 1-17). Therefore, it would have been obvious to the skilled artisan at the time the invention was made to use a lamp for contacting the coating of Hartig in a continuous manner as an alternative to the laser because such is known, as taught by Blum (sic), and this allows for irradiation of large areas (Blum (sic); column 5, lines 6-7).

The Examiner asserts that as for a particular type of lamp, selection of such would have been within purview of the skilled artisan depending on the desired wavelengths emitted. However, it would have been obvious to use an excimer lamp because such is known for emitting short wavelength UV light for selectively removing portions of an organic coating from a substrate, as taught by Kizaki (column 1, lines 16-24; column 15, line 27 and 45-46 and 52).

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

With respect to claims 8 and 16, all the limitations were addressed above with respect to claims 1 and 4, except the dominant wavelength of the UV light. Kizaki teaches the wavelength irradiated from the excimer lamp being 172nm (column 15, line 27), which is between 100-200 nm.

It is the applicant's position, however, that since claims 4, 8, and 16 have been canceled, these rejections are moot. New claims 23-38, however, recite irradiating hydrophobic coatings on an area of a surface of a vehicle glazing (see, page 2, line 23 to page 3, line 2) with UV radiation preferably having a dominant wavelength in the range of 100-200 nm (see, for example, page 2, lines 21-22), thus removing the coatings. The hydrophobic coatings referred to herein cause water which comes into contact with the coating on an exterior surface of a vehicle glazing to bead readily and run off quickly so as not to obscure the outward vision of the occupants of the vehicle (Background; page 1, lines 10-18).

After carefully studying Hartig, Anderson, Tweadey, and Kizaki the applicant can find nowhere in Hartig, Anderson, Tweadey, or Kizaki where at least the above-stated limitations (irradiating hydrophobic coatings on an exterior surface of a vehicle glazing with radiation in the range of 100-200 nm); and then adhering an item to an area of an exterior surface of a vehicle glazing (claims 23-33) or utilizing electro-mechanical means to provide relative movement between a source of UV radiation and a hydrophobic coating (claims 34-38) are taught or suggested.

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

Although the Examiner asserts that Hartig is silent on how coatings are removed, the applicant finds otherwise that Hartig is directed to removing coatings by way of grinding wheels and torches (see, for example, [0079]). The applicant can find nowhere in Hartig where ultraviolet light is used or suggested. Regarding Anderson, the applicant finds Anderson to be silent on how coatings are to be removed, so Anderson adds nothing to the removal of coatings. On the other hand, Tweadey is directed to the removal of metallic films and zinc oxide (see for example, column 4, lines 16-23).

Further, the applicant can find nowhere in Kizaki where Kizaki irradiates ultraviolet light on hydrophobic coatings disposed on vehicle glazings. Instead, the applicant finds that Kizaki teaches the use of ultraviolet light to dry clean organic residue from a substrate, in the steps of photolithography or the like for producing liquid crystal displays or semiconductor devices (see column 15, lines 21-28). Consequently, neither Anderson, Tweadey, or Kizaki add anything to Hartig's shortcomings (i.e., at least the removal of hydrophobic coatings on an exterior surface of a vehicle glazing by way of ultraviolet light in the range of 100 nm to 200 nm.)

Therefore, claims 23-38 of the present application are patentable over Hartig, Anderson, and Tweadey, and further in view of Kizaki, as the inventions defined thereby are not suggested within either Hartig, Anderson, Tweadey, or Kizaki, nor is there any suggestion to modify or combine these references' teachings in order to teach or suggest the claimed limitations, as required by 35 U.S.C. § 103. Consequently, the applicant respectfully submits that claims 23-38 of the present application are patentable over Hartig, Anderson, and Tweadey, and further in

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

view of Kizaki, and that claims 23-38 should be allowed over Hartig, Anderson, and Tweadey, and further in view of Kizaki.

11. The Examiner has rejected claims 11-13 and 22 under 35 U.S.C. § 103(a) as being unpatentable over Hartig, Anderson, and Tweadey, and further in view of Curtze. The Examiner asserts that:

Regarding claims 11-13, Applicants are directed to paragraph 22 above for a complete discussion of Hartig, Anderson, and Tweadey. Hartig teaches positioning a gasket (not shown) between a portion of the glass, from which the coating was removed, and a portion of a frame 50 (Figure 5; p. 6, [0060]). However, the reference is silent as to applying a primer to this portion of the glass before positioning the gasket and the gasket being elastomeric.

The Examiner asserts that it is known in the art to remove a portion of a coating from the periphery of a substrate so that primer can be applied to this area to facilitate bonding of an elastomeric gasket thereto, as taught by Curtze (see paragraph 20 above). Therefore, it would have been obvious to the skilled artisan at the time the invention was made to apply a primer to the coating-free portions of the substrate of Hartig before positioning the gasket because such is known in the art, as taught by Curtze, where this provides a good seal between the gasket and substrate. It would have been obvious to the skilled artisan to use an elastomeric gasket for that of Hartig because such is known in the art, as taught by Curtze, wherein such material prevents any damage (i.e. scratching) to the glass.

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

With respect to claim 22, all the limitations were addressed above with respect to claims 1 and 11-12, except applying an adhesive to the primer and bringing the elastomeric member into contact with the adhesive. Curtze teaches applying an adhesive (second primer; column 7, lines 28-30 and 36-37) to the primer and bringing the elastomeric member into contact with the adhesive.

It is the applicant's position that since claims 11-13 and 22 have been canceled, these rejections are moot. New claims 23-38, however, recite irradiating hydrophobic coatings on an area of a surface of a vehicle glazing (see, page 2, line 23 to page 3, line 2) with UV radiation preferably having a dominant wavelength in the range of 100-200 nm (see, for example, page 2, lines 21-22), thus removing the coatings. The hydrophobic coatings referred to herein cause water which comes into contact with the coating on an exterior surface of a vehicle glazing to bead readily and run off quickly so as not to obscure the outward vision of the occupants of the vehicle (Background; page 1, lines 10-18).

After carefully studying Hartig, Anderson, Tweadey, and Curtze the applicant can find nowhere in Hartig, Anderson, Tweadey, or Curtze where at least the above-stated limitations (irradiating hydrophobic coatings on an exterior surface of a vehicle glazing with radiation in the range of 100-200 nm), and then adhering an item to an area of an exterior surface of a vehicle glazing (claims 23-33) or utilizing electro-mechanical means to provide relative movement between a source of UV radiation and a hydrophobic coating (claims 34-38) are taught or suggested.

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

Although the Examiner asserts that Hartig is silent on how coatings are removed, the applicant finds otherwise that Hartig is directed to removing coatings by way of grinding wheels and torches (see, for example, [0079]). The applicant can find nowhere in Hartig where ultraviolet light is used or suggested. Regarding Anderson, the applicant finds Anderson to be silent on how coatings are to be removed, so Anderson adds nothing to the removal of coatings. On the other hand, Tweadey is directed to the removal of metallic films and zinc oxide (see for example, column 4, lines 16-23).

Further, the applicant finds Curtze directed to an anti-lacerative sheet 14 secured to an interlayer 16 on a glazing interior to the vehicle (see, for example, Fig. 2 and column 4, lines 19-24). It is the applicant's position that there would be no motivation to dispose a hydrophobic coating on the glazing interior to the vehicle where Curtze's anti-lacerative sheet would be disposed and then use Hartig's grinders/torches or irradiate Tweadey's UV light on the hydrophobic coating, which would expose Curtze's interlayer that would remain or need to be removed also. Consequently, neither Anderson, Tweadey, or Curtze add anything to Hartig's shortcomings (i.e., at least the removal of hydrophobic coatings on an exterior surface of a vehicle glazing by way of ultraviolet light in the range of 100 nm to 200 nm.)

Therefore, claims 23-38 of the present application are patentable over Hartig, Anderson, and Tweadey, and further in view of Curtze, as the inventions defined thereby are not suggested within either Hartig, Anderson, Tweadey, or Curtze, nor is there any suggestion to modify or combine these references' teachings in order to teach or suggest the claimed limitations, as

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

required by 35 U.S.C. § 103. Consequently, the applicant respectfully submits that claims 23-38 of the present application are patentable over Hartig, Anderson, and Tweadey, and further in view of Curtze, and that claims 23-38 should be allowed over Hartig, Anderson, and Tweadey, and further in view of Curtze.

The applicant respectfully submits that since the inventions defined in independent claims 23 and 34 are not taught by Cole, Blum, Van Der Putten, Kizaki, Tweadey, Curtze, Hartig, or Anderson, taken alone or in any combination, then the respective dependent claims 24-33 and 35-38, which depend directly or indirectly from the respective independent claims and thus include all of the limitations thereof, are patentable over these references. Accordingly, consideration of the claims 23-38 is respectfully requested.

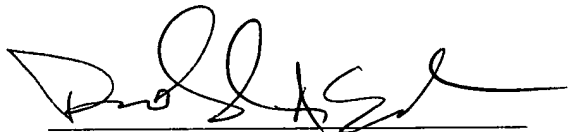
CONCLUSION

For all the reasons described in the preceding paragraphs, the applicant respectfully submits that the present application is now in condition for allowance. Accordingly, a timely action to that end is courteously solicited.

Appl. No. 09/997,347
Amdt. Dated March 22, 2004
Reply to Office action of October 22, 2003

If the Examiner has any remaining questions or concerns, or would prefer claim language different from that included herein, the favor of a telephone call to the applicant's attorneys is requested.

Respectfully submitted,



Donald A. Schurr
Registration No. 34,247

ATTORNEYS

Marshall & Melhorn, LLC
Four SeaGate – 8th Floor
Toledo, Ohio 43604
Phone: (419) 249-7145
Fax: (419) 249-7151